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ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 18 titles deal with a variety of topics, including the following: the relationships between reading achievement and imagery, auditory abilities, locus of control beliefs, oral language measures, and auditory-visual intersensory integration ability; inner city high school students with reading difficulties; oral reading and cloze test responses of average and disabled readers; the relationships between reading achievement, listening comprehension, sight vocabulary, and paradigmatic language; word segmentation abilities and semantic verification tasks in relation to reading ability; the effects of various cloze strategies on the reading comprehension and context clue use of reading disabled students; behavior patterns in children who are learning to read; three levels of reading retardation; hemispheric functions of dyslexic students and normal readers; effects of anagram type and order memory on sequential word reading errors; factors related to first grade reading success; auditory processing in learning disabled children; and good and poor adult readers' abilities to process linguistically complex sentences. (GW)

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THE RELATIONSHIP OF AN ADULT EDUCATION STUDENT'S ABILITY TO PROCESS LINGUISTIC TRANSFORMATIONS AND HIS OR HER ABILITY TO PERFORM ON A TEST OF READING COMPREHENSION

INTERNAL-EXTERNAL LOCUS OF CONTROL, READING ACHIEVEMENT, AND TIME SPENT ON-TASK AMONG HIGH SCHOOL STUDENTS WITH READING DIFFICULTIES

BLAKE, Sylvia, Ed.D.
Columbia University Teachers College, 1977

Sponsor: Anne M. Mueser

This study of the relationships among internal-external locus of control beliefs, incentives for reading, time spent in on-task reading behavior, and reading achievement in individualized, Title I, diagnostic-prescriptive reading settings in inner-city high schools resulted in several findings directly related, and/or tangentially related, to the two major hypotheses given below. 1. A student who exhibits a high degree of internality will show significantly greater reading achievement in the type of individualized reading program described here than will a student who exhibits a lower degree of internality. 2. A student who exhibits a high degree of internality will spend significantly greater amounts of time engaged in on-task reading behaviors than will a student who exhibits a lower degree of internality.

All 308 participants in this study were between the ages of thirteen and eighteen and from two to seven years below grade level in reading. All, however, were functionally literate, reading on at least a 5.0 level.

Internal-external locus of control belief was measured using a revision of the Rotter Internal-External Control Scale. Furthermore, five of the Rotter items, identified by other researchers as personal control factor questions, were evaluated separately to determine whether these items differentiate between a general internal or external ideology and internal or external personal control beliefs.

Students responded to the revised I-E items while listening to a cassette tape containing a verbatim reading of directions and of each of the internal-external control items. Subjects' reading achievement was pre-tested using the Metropolitan Achievement Test, Advanced Level, Form G. Reading achievement was post-tested using form H of the same test.

The final step in conducting this study involved multiple P-Ratio observations. P-Ratios enabled the observer to quantify the amount of on-task time devoted by each student to assigned reading activities.

Neither the first hypothesis, relating internality to reading achievement, nor the second hypothesis, relating internality to time spent in on-task reading behavior, was substantiated by the statistical findings of this research. Internality did not correlate with significant improvement in reading achievement. Similarly, internality did not correlate with high P-Ratio scores. Personal control was not found to correlate significantly with generalized I-E expectancy, excluding the personal control items. Thus, personal control may represent one of several facets of a multi-dimensional locus of control variable.

A positive correlation arising from this study related improvement in reading achievement to time spent in on-task reading behavior. The logical conclusion reached by many educators, that the more time a student devotes to a learning task the greater will be the probability of achievement, was substantiated by the present research.

The present research also produced data indicating that females across all four grades exhibited slightly higher means for the personal control factor, slightly higher scores on the reading incentive measure, and greater internality than males. Their average improvement in reading achievement, however, was only .22, or slightly more than two months growth. Males achieved a .42 mean growth rate. Thus, although females were more internal than males, they did not improve as much in reading achievement as did males.

The results of this study suggest that further investigation of the relationships among sex, locus of control belief, and reading achievement among inner-city high school students is needed. The differences for males and females on the locus of control variable may be peculiar to the population used for this research. Thus, the expectancy theory still has not been adequately tested.

Order No. 77-14,710, 117 pages.

THE RELATIONSHIP BETWEEN IMAGERY AND READING ACHIEVEMENT FOR SECOND, FOURTH, AND SIXTH GRADE CHILDREN

CLARK, Roslyn Rubidoux, Ed.D.
Northern Arizona University, 1977

Adviser: Dr. Ray Hagelberg

Reading researchers generally agree on the importance of language processes in reading success. Most reading research, particularly in the area of comprehension, has dealt with language competence. Yet it is possible that imagery--the use of mental pictures--makes a significant contribution to reading skill. The purpose of this study was to investigate the relationship between imagery and reading achievement in grades two, four, and six. A related aspect of the study was an examination of the relationship between imagery levels as measured by two kinds of tests. More specifically, this study attempted to answer the following questions: 1. What is the relationship between imagery ability and reading achievement? Does the nature of this relationship change with age? In what way? 2. Can imagery test scores by used to predict reading achievement? 3. What is the relationship between imagery levels as defined by performance on paper-and-pencil tests and imagery levels as defined by performance on a manipulative task?

Reading scores and imagery scores were collected for a total sample of 387 children. There were 130 second graders (62 girls and 68 boys), 143 fourth graders (81 girls and 62 boys), and 114 sixth graders (67 girls and 47 boys). The Total Reading score on the Stanford Achievement Test (SAT), Form A (1973), was used as a measure of Reading Achievement. The imagery battery included composite forms of three paper-and-pencil tests which were administered to classroom groups. They were the Primary Mental Abilities: Spatial Relations Test (PMA), the rotational subtest of the Kuhlmann-Finch Test (KF), and the Minnesota Paper Form Board (MPFB). In addition, a manipulative task designed by John Kershner (K) was administered to each subject individually.

Using Xerox' Statistical Package for the Social Sciences (SPSS), stepwise multiple regression analysis was applied to the data collected. This provided intercorrelations among all variables as well as a prediction equation for Reading Achievement which reflected the contribution that imagery appeared to make to the variation that occurred in reading scores.

Analysis of data lead to the following findings regarding the three research questions described above: 1. Imagery and Reading Achievement were moderately related at grades two, four, and six for girls and boys, with correlations generally increasing in degree with age. 2. Regression analysis indicated that imagery scores alone did not provide adequate prediction of Reading Achievement. Data on additional contributing variables are needed. 3. Intercorrelations among the selected imagery measures suggested that (1) the paper-and-pencil tests (PMA, KF, and MPFB) were moderately related to each other (with intercorrelations ranging from .27 to .69), but that (2) the Kershner task (K) was not significantly related to any of the paper-and-pencil tasks.

The results of this study suggest that imagery ability continues to develop beyond early childhood years, along with improving language competence, a conclusion which supports Piaget's theory. Differences in Reading Achievement/Imagery correlations for girls and boys were an unexpected discovery. Overall, girls had better reading scores and boys scored better on imagery measures until sixth grade, when scores and correlations were nearly the same.

Results of the study imply the possible effectiveness of teaching strategies--especially for middle-grade boys--which constructively use children's imagery ability to improve the level of understanding and retention of printed material.

Order No. 77-18,705, 129 pages.

A PSYCHOLINGUISTIC STUDY OF ORAL READING AND CLOZE RESPONSES OF FOURTH-GRADE DISABLED READERS, AVERAGE SECOND-GRADE READERS, AND AVERAGE FOURTH-GRADE READERS

DOLQUEIST, M. E. Elizabeth, Ed.D.
University of Kansas, 1976

1. Statement of the Problem. The purpose of the present study was to compare the reading behavior of fourth-grade disabled readers who were reading at the second-grade level with that of average second-grade readers and with that of average fourth-grade readers.

2. Procedure. The reading process was studied through psycholinguistic analyses of oral reading responses and cloze responses on material one grade level above the reading level of each group. All oral reading miscues and cloze responses were classified according to six categories of syntactic and semantic acceptability and were analyzed by separate one-way analysis of variance tests. Oral reading substitution miscues were classified according to the degree of grapho-phonic similarity to the stimulus words, and comparisons between the groups were made through chi square analyses. Tables of frequencies and proportions were given for all comparisons and were also used to analyze self-correction behavior.

3. Results and Conclusions. (1) There were no significant differences between fourth-grade disabled readers and average readers from the second grade and from the fourth grade in the types of oral reading miscues. These included self-corrections, omissions, additions, reversals, and substitutions. (2) No significant differences were found between disabled readers and second-grade average readers in their use of grapho-phonic cues. For both groups of readers, the most frequently used cues were letters at the beginning of words. However, average fourth-grade readers were found to be significantly better than the other two groups in their use of grapho-phonic cues. While letters at the beginnings of words were the most frequently used cues for disabled readers and average second graders, letters at the beginnings and endings of words were the most frequently used cues for fourth-grade average readers. (3) Fourth-grade disabled readers were not significantly different from average second graders or from average fourth graders in the syntactic and semantic acceptability of their oral reading miscues. However, some significant differences were found between average second graders and average fourth graders indicating that the average fourth graders were more efficient than the second graders in using syntactic and semantic cues. (4) Disabled readers made the greatest number of self-corrections, and average fourth graders made the fewest number of self-corrections. Average fourth graders appeared to use the most efficient self-correction strategies. (5) On the cloze task, disabled readers were superior to average second graders in their use of syntactic and semantic cues by making significantly more responses which were both syntactically and semantically acceptable and significantly fewer responses which were neither syntactically nor semantically acceptable. In comparison with average fourth graders, disabled readers were less proficient in their use of syntactic and semantic cues since the disabled readers made significantly fewer responses which were both syntactically and semantically acceptable. Significant differences were also found between average fourth graders and average second graders favoring the average fourth-grade readers. (6) All readers used syntactic and semantic cues on both the oral reading task and the cloze task. However, all groups of readers appeared to use semantic constraints to a greater extent on the cloze task than they did on the oral reading task.

Order No. 77-16,321, 159 pages.

THE RELATIONSHIP BETWEEN READING ACHIEVEMENT, LISTENING COMPREHENSION, SIGHT VOCABULARY, AND PARADIGMATIC LANGUAGE IN SELECTED SECOND GRADE STUDENTS

DWYER, Edward Joseph, Ph.D.
University of Georgia, 1977

Supervisor: Ira E. Aaron

The purpose of this study was to examine the performance of subjects on several measures of language: (1) the Oral P/S Language Inventory (paradigmatic language), (2) the Metropolitan Achievement Tests (reading), (3) the Slosson Oral Reading Test (sight vocabulary), and (4) the Diagnostic Reading Scales (listening comprehension). Special emphasis was placed on the relationship of paradigmatic language to the other measures of language.

The subjects were 157 grade two students in one elementary school in Oglethorpe County, Georgia. There were nearly equal numbers of blacks and whites as well as boys and girls. All the measures were administered in the spring of 1976.

Computation of Pearson product-moment correlations produced significant (.05) relationships between all measures. Multiple regression analysis was computed with reading achievement (Metropolitan) as the criterion variable. The measure of sight vocabulary correlated most highly (.76) with the Metropolitan while inclusion of the test of listening comprehension significantly added to the predictive value obtained. Addition of the paradigmatic measure did not add significantly to the predictive value of the combined sight vocabulary and listening measures.

Analysis of variance yielded significant difference in scores of boys and girls on the measures of reading achievement and sight vocabulary favoring girls. Boys' and girls' scores on the paradigmatic and listening tests were not significantly different. Analysis of variance was also used to compare scores of blacks and whites. On all measures, scores of whites were significantly higher than those of blacks.

Girls' scores on the measures of reading achievement and the measure of sight vocabulary suggest the possibility that cultural and environmental factors encourage greater academic achievement in females. Significant sex differences were not found in the paradigmatic language or in listening comprehension, areas where growth is more influenced by overall environment rather than by formal schooling.

Scores significantly favoring whites appear attributable to socioeconomic rather than racial factors. While mean scores of blacks were lower, standard deviations indicated that scores of blacks and whites overlapped considerably.

Order No. 77-18,923, 75 pages.

AN INVESTIGATION OF WORD SEGMENTATION ABILITIES AS THEY RELATE TO READING ABILITY IN GRADES ONE THROUGH FIVE

GLASSER, Diane Leslie, Ed.D.
Columbia University Teachers College, 1977

Sponsor: Margaret Jo Shepherd

This study investigated the relationship of word segmentation abilities (syllabic and phonemic) to reading ability in 274 children in grades one through five. The relationship of syllabic segmentation ability (SSA) to phonemic segmentation ability (PSA) was also examined.

A two part instrument was developed to measure word segmentation abilities. Word Segmentation Test, part I (WST I) measured the ability to segment words by syllables. Word Segmentation Test, part II (WST II) measured the ability to segment words by phoneme.

Each test consists of 34 pictures: three sample items and 31 test items. The subjects were told to say the names of each picture, listen for the number of parts, or syllables (in WST I), or the number of sounds (in WST II), then mark an X on one of the numbers next to the picture.

Testing was undertaken on a class basis in two classes on each grade level. Only in grade one were the classes divided in half to facilitate testing. WST I and WST II were administered in reverse order in the classes in each grade to avoid a fatigue effect.

To obtain a uniform reading measure, a five-point Teachers Rating Scale (TRS) was developed. Classroom teachers rated each subject according to his ability to read on, above, or below grade level.

The reliability of WST I and WST II was assessed with the Spearman-Brown split-half reliability formula. A significant reliability ($p < .001$) was obtained for WST I and WST II.

The relationship between WST I and TRS was assessed with Pearson product-moment correlation coefficients. Significant correlations were obtained in the total sample ($p < .05$), in grades two and three ($p < .01$) in individual classes in grades one ($p < .001$), two ($p < .05$), three ($p < .01$), and four ($p < .05$). The interpretation of the data was somewhat obscured by the disproportionate number of subjects that earned high scores on WST I in grades two through five and test order effects in grades one through three.

While SSA was considered to have some bearing on reading ability, the fact that 19% of the sample exhibited strong SSA while reading below grade level was noted.

The relationship between WST II and TRS was assessed with Pearson product-moment correlation coefficients. Significant correlations were obtained in the total sample ($p < .001$), in grades one and four ($p < .01$), two and three ($p < .05$), and in individual classes in grades one ($p < .05$, $p < .01$), two ($p < .01$), three ($p < .01$), and four ($p < .01$).

While cause and effect relationships were not inferred, stronger and more consistent relationships between PSA and reading ability were present, compared to relationships between SSA and reading ability. It was suggested that training in phonemic segmentation might be advantageous to reading acquisition, particularly in the early grades.

The relationship between WST I and WST II was assessed with Pearson product-moment correlation coefficients. On a grade level, low or negative correlations were present. However, on a class level significant positive correlations were present in first and third grades ($p < .01$). The disproportionate number of high scores obtained on WST I and the test-order effects somewhat confounded the interpretation of these findings.

An examination of mean scores revealed that SSA excelled PSA in all classes in grades two through five. Only in grade one was PSA found to surpass SSA. In one class in grade one, the highest mean score on WST II was obtained. This finding suggested two hypotheses: either the specific teaching techniques employed in that class sensitized the listener-reader to the phonemic basis of words in this study, or beginning reading instruction in general produced a heightened sensitivity to phonemic hearing. The test-order effect in grade one obscured the interpretation of this finding.

Order No. 77-14,720, 132 pages.

THE RELATIONSHIP OF SELECTED AUDITORY ABILITIES TO FIRST, SECOND, AND THIRD GRADE READING ACHIEVEMENT

GUILIANO, Louis Rudolph, Ed.D.
Hofstra University, 1977

The major purpose of this study was to investigate selected auditory abilities with students in Grades One, Two, and Three to determine the relationship of these auditory abilities to primary reading achievement. An additional purpose was to study the relationship between selected auditory abilities, intelligence, socio-economic status, age, and reading.

The subjects were 136 first, second, and third grade students from a middle to low socio-economic background who successfully passed the screening criteria. Those students who were identified as having hearing, speech, vision, or emotional difficulties were excluded. Each subject received the Metropolitan Reading Achievement Tests and the Otis-Lennon Intelligence Test as part of the school testing program. The Composite Auditory Perceptual Test; Test of Central Auditory Abilities; and Sweet Hollow Auditory Test, an investigator-developed test, were administered individually to all subjects.

The following findings were arrived at from an analysis of the data of the investigation: 1. The Composite Auditory Perceptual Test and the Sweet Hollow Auditory Test were significantly related to beginning reading achievement. Both tests differentiated between the good and poor readers at the primary level. 2. The Test of Central Auditory Abilities was not related to beginning reading achievement and did not differentiate between good and poor readers at the primary level. 3. Socio-economic status did not correlate significantly with reading achievement. 4. Chronological age did not correlate significantly with intelligence, selected auditory abilities, and reading achievement at any grade level. 5. The correlations between intelligence, the Composite Auditory Perceptual Test and the Sweet Hollow Auditory Test were found to be significant. 6. The three auditory tests did not establish a hierarchy of auditory skills. However, the importance of auditory synthesis, auditory closure, auditory blending, auditory-visual blending, and auditory segmentation was clearly established. 7. When comparing the performance on the auditory tests by sex, no significant difference was noted between boys and girls. However, girls performed better than boys on all tests.

The conclusions of this study were drawn from the findings of the investigation: 1. The Composite Auditory Perceptual Test and the Sweet Hollow Auditory Test measure similar functions. The processes measured in both are closely related to beginning reading. 2. Poor readers are less capable than good readers in selected auditory abilities as measured by the Composite Auditory Perceptual Test and the Sweet Hollow Auditory Test. 3. The Test of Central Auditory Abilities shows little predictive value to primary reading achievement. 4. Development of the selected auditory abilities used in this study were not influenced by socio-economic status. 5. Chronological age has limited prognostic value with reading achievement. 6. Girls performed better than boys on all selected auditory tests which contributes to the belief that girls' perceptual systems as well as their overall maturation develop more rapidly than boys. 7. The auditory tasks of auditory synthesis, auditory closure, auditory blending, auditory segmentation, and auditory-visual blending are related to the essential components in the task of beginning reading. 8. The emphasis on any one auditory perceptual skill for reading instruction, without consideration of additional auditory processes, is questionable.

Order No. 77-18,897, 168 pages.

THE RELATIONSHIPS BETWEEN READING ABILITY AND SEMANTIC VERIFICATION TASKS

HANSON, Karen Mae Benson, Ph.D.
University of Minnesota, 1977

Purpose

This study collected and analyzed data pertaining to four semantic verification tasks and decoding ability of good and poor adult readers. The decoding scores and correctness, confidence, and latency of response to the semantic verification tasks were compared.

Procedures

Sixty students from a suburban Minneapolis two-year college served as subjects. Thirty each were randomly selected from those scoring at or above the 73rd percentile and those scoring at or below the 27th percentile on the McGraw-Hill Reading Test, Form B (Raygor, 1970), two-year college norms.

The subjects were asked to read short paragraphs and for each respond true or false to items representing four semantic verification tasks: integration, unprimed category-prototype relationships, primed category-prototype relationships, and verbatim recognition. The experimenter-constructed test was individually administered on a rear-screen viewer with latency subject-controlled by a single button attached to both a tachistoscopic lens and a timer. Responses were collected regarding latency of paragraph reading, and correctness, confidence, and latency of response to the four item types.

Good and poor readers were also given the Diagnostic Reading Test: Word Attack Test (Triggs, et. al., 1966) to determine if decoding skills were related to adult reading ability and semantic verification.

Results

Mean scores of good and poor readers on the decoding measure differed at a $p < .001$ level when compared by a t-test. Correlations between decoding and reading ability, decoding and semantic verification, and reading ability and semantic

verification were .6522, .5159, and .7125 respectively. The correlation of decoding to the fastest and slowest true mean latencies for the semantic verification task were -.5424 and -.5571, respectively.

On the semantic verification task analysis of variance revealed interaction for correctness of response between ability and item type and item type and true-false treatment conditions ($p < .01$).

Confidence of response on a scale of 5 (most confident) to 1 (least confident) was similar for the two groups, the range of mean confidences being from 4.61 to 4.99.

Ranking of correctness and confidences for true and false conditions resulted in identical orders for both groups. From most correct and confident to least correct and confident the order was unprimed category-prototype, primed category-prototype, verbatim recognition, and integration.

Response latency, analyzed with paragraph reading time as a covariate indicated that good readers more rapidly processed both true and false items; that the rates of processing were not parallel for the two ability groups; that the tasks had quite different interaction patterns under true and false conditions; and that good readers more rapidly ($p < .003$) processed semantic information under all conditions with the exception of false verbatim recognition.

A $K-R_{20}$ analysis of the semantic verification instrument indicated that individual items were not difficult, nor did they discriminate between high and low scoring subjects within item type. Overall reliability, however, was .81.

Conclusions

Good readers exceeded poor readers in all aspects of the decoding and semantic verification tasks. Differences in semantic verification speed are attributable not only to reading skills but to time required for semantic processing. Relationships do exist between decoding ability, semantic verification, and reading ability.

Implications

Differences in decoding skills indicate that this skill may still be useful for adults and should be considered as a possible instructional procedure.

Poor readers should be encouraged to see reading as a means of adding new learnings to old, requiring integration of information during the reading process, as opposed to a discreet task of attaining isolated information from a written passage. Order No. 77-18,993, 110 pages.

THE EFFECT OF SELECTIVE CLOZE DELETION STRATEGIES UPON THE READING COMPREHENSION AND CONTEXT CLUE UTILIZATION OF DISABLED READING NINTH GRADE STUDENTS

HERSKOVITZ, Sanford, Ph.D.
Case Western Reserve University, 1977

The purpose of this study was to explore the effect of selective cloze strategies on the reading comprehension and context clue utilization of the reading disabled junior high school student.

Description of the Sample

The sample consisted of 120 Caucasian ninth grade students (60 male and 60 female) reading at the seventh grade level.

Experimental Procedure

Each of the subjects was randomly assigned to either one of four treatment groups or the control group. Each group read the same 425 word passage; however, Group I read the passage with every noun determiner deleted, Group II read the passage with every fifth verb deleted, Group III read the passage with every fifth noun deleted, Group IV read the passage with every tenth word deleted, and the control, Group V, read the passage intact -- no deletions.

Subjects, except those assigned to the control passage, read the passage and filled in the appropriate cloze blanks with words that made sense. The control group subjects read the passage intact. Subsequent to the above, all students answered the same twenty multiple choice recall comprehension questions without referring back to the passage. Upon completion of the recall tasks, all students were administered a Words-In-Context test.

A 5 X 2 analysis of variance procedure was utilized in this study. The three independent variables consisted of 1) five levels of treatment (every noun determiner deletion, every fifth verb deletion, every fifth noun deletion, every tenth word deletion, and a control with no deletions), 2) number correct on the recall comprehension test, and 3) number correct on the Words-In-Context test. The alpha level was set at .05. When a significant F-Ratio was obtained, a post hoc using the Tukey's HSD procedure was performed.

Findings

1. The students assigned to the control passage (no deletions) obtained significantly higher comprehension scores than those assigned to the every fifth verb deletion group. Also, a significant interaction revealed that females assigned to the noun determiner group and tenth word deletion group obtained significantly high comprehension scores than males assigned to the same groups. There were no significant differences in comprehension between males and females assigned to the fifth verb deletion group, the fifth noun deletion group, or the control. 2. Students assigned to the fifth verb deletion groups obtained significantly higher cloze scores than students assigned to the noun determiner deletion group. There were no other significant differences among cloze scores. 3. There was no significant differences in the Words-In-Context test among students assigned to the five treatment groups. 4. There were no significant differences on the comprehension test scores between students assigned to the fifth noun deletion group and the fifth verb deletion group. 5. Students assigned to the fifth verb deletion did not obtain significantly higher cloze scores than those assigned to the fifth noun deletion group. 6. There were no significant differences in the Words-In-Context test between students assigned to the fifth noun deletion group and fifth verb deletion group. Order No. 77-18,824, 100 pages.

BEHAVIORS IN LEARNING TO READ

HODGE, Jacqueline Gamble, Ed.D.
University of Southern California, 1976

Chairman: Professor Grayce A. Ransom

Purpose. The purpose of the study was to answer the question: What are the behaviors through which successful beginning readers learn to decode? Answering the basic question required a search for answers to the following questions: (1) What behaviors do beginning readers exhibit in the reading-learning situation? (2) What are the differences between the behaviors of successful beginning readers and unsuccessful beginning readers? Which behaviors are significantly exhibited by successful beginning readers? Which behaviors are significantly exhibited by unsuccessful beginning readers?

Procedures. The descriptive, observational child study method was used in order to identify pupil behaviors exhibited in the reading-learning situation. Categorization of the identified behaviors resulted in the development of the Behaviors in Reading Observation Checklist (BROC) which was utilized for the major work of the investigation.

The subjects of the investigation were seventy (later reduced to fifty-two) Black, first grade boys, half of whom were identified as successful beginning readers and the other half as unsuccessful beginning readers. The BROC data were quantified and statistically analyzed in order to find out which behaviors were significantly exhibited by each kind of reader.

Selected Findings. The major findings of the study were as follows: (1) Behaviors significantly exhibited by successful beginning readers – reading orally, sounding letters at teacher request, moving lips while reading, posture appropriate, eyes attentive to work, operating equipment, other transitional miscellaneous behavior (studying with another pupil; working at

other activities), moods – neutral, attentive-concentrative. (2) Behaviors significantly exhibited by unsuccessful beginning readers – inappropriate posture, locomotion inappropriate, hitting, fighting, looking at or through materials at inappropriate time, mishandling something, sitting idle, shouting out, angry, restless, disruptive. (3) Successful beginning readers exhibited significant differences in the category of Verbal Decoding Behavior. (4) Unsuccessful beginning readers exhibited significant differences in the categories of Inattentive-Distracted Behavior, and Blame-Scolding received. (5) Successful beginning readers were significantly found to be engaged in language arts activities.

Selected Conclusions. Successful and unsuccessful beginning readers significantly differ (1) in the behaviors they exhibit as they learn to decode, (2) in the categories of Verbal Decoding Behavior, Inattentive-Distracted Behavior, and Blame and Scolding received, with the unsuccessful beginning reader scoring higher in Inattentive-Distracted Behavior and Blame and Scolding received. (3) Successful beginning readers are involved in significantly more language arts activity and operate more learning equipment than do unsuccessful beginning readers.

Implications. To aid beginning pupils in learning to read, teachers should: (1) identify pupils with syndromes of failure behavior early in the school year; (2) plan intervention programs for the unsuccessful beginning reader which assist him in acquiring positive-facilitating, attentive behaviors, and stress verbal decoding behaviors; (3) arrange the learning environment to include many language arts activities; and (4) provide pupils opportunities for the manipulation of learning equipment that utilizes language arts software.

Selected Recommendations. There should be further research: (1) on each of the decoding behaviors in order to identify specific learning stages within each; (2) on the quantities and qualities of performance which are necessary for success in the decoding behaviors; (3) to identify and quantify the depth of pupil attention in reading; and (4) to develop and test intervention programs for pupils with syndromes of failure behavior in reading.

AN INVESTIGATION OF THE RELATIONSHIP OF SELECTED ORAL LANGUAGE MEASURES AND FIRST-GRADE READING ACHIEVEMENT

HOPKINS, Carol Jeanne Horgan, Ph.D.
Purdue University, 1976

Major Professor: Alden J. Moe

The purpose of the study was to investigate oral language characteristics of first-grade children to determine the relationship between selected measures of oral language and reading achievement at the end of first grade. The investigation focused on the following questions: 1. What is the relationship between selected measures of oral language and reading achievement at the end of first grade? 2. Are there differences in the oral language characteristics of first-grade children reading above grade level, at grade level, and below grade level? 3. Can oral language measures be used to predict vocabulary, word reading, comprehension, word study, and total reading test scores on a first-grade reading achievement test?

One hundred first-grade students were randomly selected from the total first-grade population of a public school system in northern Indiana. The 48 boys and 52 girls who participated in the study were non-bilingual Caucasian children.

The Stanford Achievement Test, Primary Level I Reading was used as the measure of reading achievement. The following five subtest scores were considered: (1) vocabulary, (2) word reading, (3) reading comprehension, (4) word study, and (5) total reading.

Individual interviews during which subjects were asked to respond to a set of questions were conducted with each of the 100 subjects to obtain oral language samples. From the transcribed responses obtained from the tape-recorded interviews, the following oral language measures were studied: (1) total number of words spoken, (2) total number of different words used, (3) corrected type-token ratio, (4) number of words not on the Thorndike list, (5) average utterance length, (6) total number of T-units, (7) average T-unit length, (8) number of words in garbles, (9) Syntactic Density Score, and (10) Developmental Sentence Score.

To determine the relationship between the ten selected measures of oral language and reading achievement at the end of first grade, correlations between raw scores obtained on the comprehension subtest and each of the oral language measures were calculated. Statistically significant, but low, correlations existed between the comprehension subtest scores and the oral language measures of average utterance length, average T-unit length, number of words in garbles, Syntactic Density Score, and Developmental Sentence Score.

Three groups were formed based on stanine scores in reading comprehension in order to examine the relationship between oral language and reading achievement. Results of the one-way analyses of variance performed for each of the ten oral language measures revealed statistically significant differences in the oral language measures of average utterance length, average T-unit length, and the Syntactic Density Score.

Results of the five stepwise multiple regression analyses performed to determine whether oral language measures could be used to predict subtest scores on a first-grade reading achievement test showed that average utterance length and the number of words in garbles were the only two significant predictor variables; these variables accounted for only a small amount of the variance (fourteen and six percent respectively) associated with the reading variable.

Order No. 77-15,417, 212 pages.

DISCRIMINANT ANALYSIS OF THREE LEVELS OF READING RETARDATION

LORTON, Mary Manning, Ph.D.
University of Missouri – Kansas City, 1976

The primary purpose of this study was to assess the conceptual basis for three categoric levels of reading retardation: Mild, Corrective and Remedial. The second purpose of this study was to explore the possibility of a certain set of factors distinguishing children (ages 7.0 to 11.0) from adolescents (ages 11.1 to 15.11); this consideration was based on an aspect of Piaget's cognitive development theory regarding Concrete vs. Formal operations. The simple hypotheses were that if Mild, Corrective and Remedial levels of reading disability were sound concepts, and if Concrete and Formal operations was a useful factor split, then a formula could be derived which would statistically differentiate cases by identification of shared characteristics.

The 180 subjects of this study were drawn from the private files of a single diagnostician. Diagnostic data on 17 factors was recorded and analyzed by a discriminant function analysis, a statistic which generates a formula against which each case can be checked for appropriate group membership. The 17 factors were: Information, Comprehension, Arithmetic, Similarities, Digit Span, Picture Arrangement, Picture Completion, Block Design, Coding, Dominance, Visual-Motor Integration, Auditory Discrimination, Visual Discrimination, Word Recognition in Isolation, Word Recognition in Context, Oral Comprehension and Spelling.

The discriminant function analysis yielded statistically different profiles for Remedial children and adolescents as compared to Mild and Corrective children and adolescents. The following factors differentiated Remedials with 85.0 percent accuracy: Visual Discrimination, Visual Motor Integration, Dominance, Word Recognition in Isolation, Comprehension, Word Recognition in Context and Spelling. The factors of Spelling, Word Recognition in Context, Comprehension, Dominance, Visual Motor Integration, Word Recognition in Isolation and Visual Discrimination distinguished Mild readers (with 78.3 percent accuracy) and Corrective readers (with 68.3 percent accuracy). These results were significant beyond the .001 level of confidence.

The results of the analysis for the designation Concrete operations found the following variables to be discriminating: Oral Comprehension, Visual Discrimination, Word Recognition in Context, Picture Arrangement, Auditory Discrimination, Arithmetic, Visual Motor Integration and Spelling. Similarly, the designation Formal operations was distinguished by Spelling.

Visual Motor Integration, Arithmetic, Auditory Discrimination, Picture Arrangement, Word Recognition in Context, Visual Discrimination and Oral Comprehension. The 80 percent of cases labelled Concrete operations and 75.6 percent of Formal operations were correctly classified by the above mentioned variables. Predictive success of this factor split was significant beyond the .001 level of confidence.

The major findings of this study are: 1) Remedial readers are quite different in the nature as well as degree of their deficits from Mild and Corrective readers; and, 2) there is a distinction in the arrangement of factors which constitute reading retardation when the factors Concrete and Formal operations are taken into account.

The former findings were taken to mean that Remedial readers are different in kind, rather than in degree from Milds and Correctives, and that they are best understood as students with psychoeducational versus educational deficits. The latter findings were accepted as compelling evidence to support a view of reading disability as a form of cognitive deficit, as well as a reading skill deficit. Order No. 77-16,870, 77 pages.

DIFFERENCES IN HEMISPHERIC FUNCTIONS BETWEEN DYSLEXICS AND NORMAL READERS

MALATESHA, Rattihalli N., Ph.D.
University of South Carolina, 1976

The present study was designed to investigate differences in hemispheric functions between dyslexics and normal readers. Normal readers and dyslexics were selected so as to be similar on the variables of socioeconomic status and measured intelligence. Normal readers were reading at or above their grade level, while the dyslexics were reading at least two grades below their grade placement. A total number of eighty normal readers and eighty dyslexics were selected and were administered four tasks. Two visual field tasks, one visual field task for digits, and a visual field task for dot patterns, were administered to all the subjects. The visual field tasks were administered by means of a Tach-X Super 8 tachistoscope at an exposure time of 10 msec. per trial. Further, two dichotic listening tasks, one consisting of monosyllables, and the other consisting of musical tones, were administered to all the subjects. These dichotic listening materials were presented by means of a stereophonic tape recorder which the subjects heard from a set of standard audiometric headphones. The research design was a 2 x 2 x 2 design with an equal number of subjects in all cells. There were two groups of subjects, normal readers and dyslexics; both sexes, boys and girls; and two different age groups, 6 to 8 year old children and 11 to 13 year old children. There were twenty subjects in each cell and the total number of subjects was 160. Three-way analysis of variance was the statistical tool employed in the present study. Whenever any significant interaction effects were found, Tukey's Honestly Significant Difference (HSD) method was employed to find the significant difference among groups.

Three different measures were obtained on the visual field tasks for digits and for dot patterns. The first measure was the total number correctly recalled; the second measure was the visual field superiority; and the third measure consisted of the particular visual field from which the digits or dot patterns were first reported. Younger normal readers, older normal readers, and older dyslexics performed significantly different from the younger dyslexics on all three measures of the digits task. Normal readers and older dyslexics recalled more digits, and also recalled more digits from the left visual field than from the right visual field than did the younger dyslexics. On the visual field task for dot patterns, younger normal readers, older normal readers, and older dyslexics not only reported more dot patterns correctly than the younger dyslexics, but also reported more dot patterns from the left visual field first. Further, normal readers and older dyslexics reported significantly more dot patterns from the left visual field than from the right visual field.

On the dichotic listening tasks, normal readers showed a significant right ear advantage for monosyllables and a significant left ear advantage for musical tones, while the older dyslexics showed a significant left ear advantage for musical tones and a slight right ear advantage for monosyllables, although the latter did not reach the level of significance. Younger dyslexics, on the other hand, did not show any significant ear superiority for either the monosyllables or the musical tones dichotic listening tasks. There was a significant difference between boys and girls only on the dichotic listening task for musical tones. Normal girls reported significantly more musical tones from the left ear first than the normal boys, dyslexic boys, and dyslexic girls.

Order No. 77-13,906, 109 pages.

THE EFFECTS OF ANAGRAM TYPE AND ORDER MEMORY ON SEQUENTIAL ERRORS IN WORD READING

MINDELL, Phyllis, Ed.D.
The University of Rochester, 1977

Sponsor: Dr. Keith Rayner

The main purpose of this study was to validate the antecedent-consequent model of reading dysfunction by demonstrating relationships between verbal spatial order memory and sequential errors in word reading. Additionally, the study was to provide data on the nature and frequency of sequential errors in word reading.

Subjects were 38 second grade, 58 third grade, and 46 fourth grade students in a northeastern suburban public school system, in matched groups of dyslexic and normal readers. Dyslexic readers had scored below the 28th percentile on a standardized reading test, had been exposed to conventional educational opportunity, had normal intelligence, and were free from neurological, sensory and severe psychological disorder. Normal readers matched the dyslexics on age, sex, grade, school, and intelligence, but had scored between the 50th and 80th percentile on a standardized reading test.

The research procedure involved individual administration of standardized reading achievement and intelligence tests, a free recall letter memory task, a verbal spatial order memory task, and reading of 104 words.

With the goal of systematically varying the opportunity to make sequence errors, three kinds of anagrams were used as stimuli. They were: anagram pairs in which both words shared the same initial letter (i.e., bread/beard), pairs whose letters could be rearranged to form either word (i.e., lemon/melon), and fully reversible pairs (i.e., was/saw). Rare words and pairs with widely discrepant frequencies were eliminated. Control words, chosen only on the basis of length and frequency, were also included.

The principal result was that normal readers read all types of words more accurately than dyslexic readers, and both groups showed a developmental trend toward increasing accuracy and reduction of each error type with age. The exception occurred with dyslexic readers, whose sequence errors increased with age.

Most sequence errors for both groups occurred on the initial letter same anagrams, which also accounted for the elevation of dyslexics Sequence errors by fourth grade. Dyslexics produced more than half of their sequence errors on these initial same anagrams, but made significantly more on the other word types as well, while normal readers' sequence errors on all other word types were under 2%. For dyslexic readers, sequence errors represented a stable proportion of under 10% of their attempts.

Order memory and item memory correlated to error types for the normal readers, but were incongruous or uncorrelated for the dyslexics. Dividing the dyslexic readers into subgroups based on memory did not clarify the relationships between memory and sequence errors; most subgroups of dyslexics increased their sequence errors with age.

The main conclusion was that sequence errors on initial letter same anagrams should be reinterpreted, not as sequence errors, but as a manifestation of immaturities in part-whole integration in a Piagetian sense. Perceptual part-whole integration normally matures at the third or fourth grade level. Normal readers utilize this ability to integrate embedded sequential details with the more salient cues of initial letter,

length, shape, and familiarity, thus eliminating sequence errors on these words. Dyslexic readers developmentally lag behind normal readers in perceptual part-whole integration and therefore do not show a decrease in sequence errors on initial same anagrams, though their ability to exploit other cues improves and reduces all other errors.

It was also found that dyslexic fourth graders performed much like normal second grade readers on most measures, providing additional support for a developmental lag hypothesis to explain their error patterns.

Theories attributing the twisted symbol to emotional, visual, central nervous system and cognitive causes were evaluated with regard to this study. Support was found for figure ground and cognitive developmental explanations.

Order No. 77-20,142, 113 pages.

SELECTED FACTORS RELATED TO READING SUCCESS IN THE FIRST GRADE

MOOREHEAD, Annette Dalegowski, Ph.D.
The University of Arizona, 1977

Director: Pat N. Nash

The purpose of this study was to measure the relationship of a number of factors that may contribute to predictability of success in first grade beginning reading as measured by the Reading Test of the Stanford Achievement Test.

The factors involved were: Metropolitan Readiness Tests total score, sex of child, child's chronological age when entering first grade, child's primary spoken language, composition of child's family, child's ordinal rank in the family, and socio-economic status of the child's family.

Each of the independent variables was correlated individually and collectively with the dependent variable. The raw data were analyzed on an IBM 1130 Disc Computer System utilizing the Scientific Sub-Routine Package as developed by IBM. The primary computations derived were the means, variances, and standard deviations of all independent and dependent variables. Following this series of computations, multiple linear regression analysis was performed for the set of independent and dependent variables. Level of significance was set at .05.

The following variables were significantly correlated with the Stanford Reading Test Score: Metropolitan Readiness Tests total score, sex of child, child's primary spoken language, and socio-economic status of the child's family. Three independent variables did not correlate significantly with the Stanford Reading Test score. They were: chronological age of child, composition of family, and child's ordinal rank in the family.

The number of different combinations possible of the seven variables totaled 120. Of these, 116 were statistically significant at the .01 level when correlated with the Stanford Reading Test score. If the combination contained even one significant variable, the multiple correlation coefficient of that combination was statistically significant at the .01 level. In all the combinations that contained the Metropolitan Readiness Tests total score and sex, those variables were the ones that made significant contributions to the multiple correlation coefficient. In combinations that did not contain the Metropolitan Readiness Tests total score, sex, primary language, and socio-economic status made significant contributions to the multiple correlation coefficient.

On the basis of data presented in this investigation, the following generalized conclusions were reached: 1. The Metropolitan Readiness Tests total score was a good single predictor for success in first grade reading even when an intensive synthetic phonics method of teaching reading was used. 2. Child's sex, primary language, and socio-economic status appeared to have a significant relationship to reading achievement. 3. Chronological age, family composition, and the child's ordinal rank in the family did not appear to be significantly related to reading achievement. 4. If the combinations of variables contained even one significant variable, the multiple correlation coefficient of that combination indicated significance at the .01 level with the Stanford Reading Test score.

As a result of the analysis of the data, these recommendations were suggested: 1. The use of Metropolitan Readiness Tests should be given strong consideration for determining readiness for reading. 2. Boys should be carefully diagnosed and evaluated for whatever reading skills help they may need as soon as possible. 3. Children whose primary language is other than English should be given prior vocabulary development instruction as well as concurrent vocabulary development and reading instruction. 4. Children from lower socio-economic groups should be given opportunity to expand and develop their vocabulary by providing many experiences both in and out of the classroom. 5. This study should be replicated in areas using different methods of reading instruction. 6. A follow-up of this study should be done in successive years to determine if the relationships of the seven variables change.

Order No. 77-15,339, 140 pages.

INTRASENSORY VS. INTERSENSORY PRESENTATION METHODS ON RATE OF PAIRED ASSOCIATES LEARNING BY LEARNING DISABLED AND NORMAL READERS

MOREA, William J., Ph.D.
St. John's University, 1977

Supervisor: Dr. Armin Thies

The major purpose of this study was to investigate auditory, visual, and intersensory processing as manifested by third graders who were either learning disabled or normal readers. The research sought to determine the degree of relationship between reading achievement and auditory-visual intersensory integration ability. The present research also examined whether intrasensory strengths are significantly correlated to learning.

Implementation of the present study necessitated the development of several new tasks and procedures. A filmstrip and cassette tape were used to coordinate automatically the standard presentation of visual-visual, auditory-auditory, and visual-auditory paired associates.

The subjects were 74 Caucasian, generally middle class youngsters between the ages of 8 years, 4 months and 9 years, 5 months. Subjects were pretested with the Peabody Picture Vocabulary test. A minimum IQ score of 90 was required for inclusion in the study.

Pearson product moment correlations were computed between all variables. The unique variance contribution of each variable to reading achievement was determined by a multiple regression analysis. A stepwise regression procedure was also performed to examine which factors would contribute significant variance to the prediction of achievement scores. The results were as follows: 1. Reading achievement scores were significantly correlated with intrasensory and intersensory digit span memory. 2. The correlation between the number of trials to learn intersensory associations and reading achievement was not significantly greater than the correlation between the number of trials to learn intrasensory associations and reading achievement. 3. The correlation between intersensory digit span memory and reading achievement was not significantly greater than the correlation between intrasensory digit span and reading achievement. The difference in the correlations was in the opposite direction of what was predicted. 4. The number of trials to learn intrasensory associations was significantly correlated with intrasensory digit span memory within the same modality. However when the common variance due to digit span memory (irrespective of modality) was partialed out, the correlations were insignificant.

Results of the present study demonstrated no significant relationship between reading achievement and auditory-visual integration when measured on digit span or association learning tasks. The lack of significant correlations between such tasks may indicate that the difficulty in auditory-visual integration found with younger reading disabled students tends to diminish with the increase in age and/or education. It is possible that previous studies of auditory-visual integration in reading disabled youngsters did not adequately control for the effects of intelligence. Differences in relationship to reading achievement from previous research support the conclusions that 1) there may be separate visual-auditory integrative skills that are tapped by various intersensory tasks, or 2) factors other than visual-auditory integration are critical to the relationship between reading achievement and intersensory tasks.

Results were inconclusive on the issue of whether children learn new material easier when instruction input is consistent with their stronger modality. Order No. 77-17,748, 75 pages.

AUDITORY PROCESSING IN CHILDREN WITH LEARNING DISABILITIES

RATCLIFF, Jo-Ann Kay, Ph.D.
University of Southern California, 1977

Chairman: Professor Metfessel

Purpose. The purpose of this study was to determine the extent to which a set of measures of auditory processing would discriminate between students with learning disabilities and average students and between students with learning disabilities and other remedial readers.

Procedure. Eight measures of auditory processing were individually administered to the following students: (1) fourth, fifth, and sixth graders who were enrolled in public school Learning Disability Group (LDG) classes, (N=27); (2) a random sample of fourth, fifth, and sixth graders who were remedial readers (who scored two years below grade level on a standardized reading test), who were labeled as Title I students or who had Spanish surnames, and who were currently enrolled in remedial reading programs (N=27 per remedial reader group); (3) a random sample of average fourth, fifth, and sixth graders who were attending summer school (N=27). Average students were those who had scored at grade level, plus or minus one year, on a standardized reading test, who were not enrolled in any special classes, and who had not been referred for psychological evaluation or counseling.

The eight measures of auditory processing included four subtests of the Illinois Test of Psycholinguistic Abilities (Auditory Reception, Auditory Association, Auditory Closure, and Grammatic Closure) and four subtests of the Detroit Tests of Learning Aptitude (Verbal Opposites, Oral Commissions, Attention Span for Unrelated Words, and Attention Span for Related Syllables).

Two discriminant analyses were applied to the data to investigate the separation power of the measures for learning disability students vs. average students and for learning disability students vs. other remedial readers. Analysis of variance and covariance were utilized to test for effects of grade level and grouping.

Findings. The first discriminant analysis resulted in a prediction equation which correctly classified 74 percent of the learning disability group and 85 percent of the average group. Six of the eight measures proved to be significant discriminators. In rank order, they were: Verbal Opposites, Attention Span for Unrelated Words, Grammatic Closure, Auditory Reception, Oral Commissions, and Auditory Association. The second discriminant analysis resulted in a prediction equation that correctly classified 70 percent of the LD group and 83 percent of the remedial reader group. Five measures were significant discriminators. In rank order, they were: Attention Span for Unrelated Words, Oral Commissions, Auditory Reception, Auditory Closure, and Grammatic Closure.

Conclusions. A set of auditory processing measures does have rather impressive discriminating power in separating learning disability students from average students as well as from other remedial readers. The battery used required 30 minutes of test administration time, has the advantage of simplicity of scoring, and appears to have direct relationship to classroom activities. The battery practice utilized by most school psychologists, Wechsler Intelligence Scale for Children, the Wide Range Achievement Test, and the Bender Motor Gestalt test, requires about 75 minutes of testing time. It is complicated in scoring procedure and necessitates considerable expertise for interpretation and prescription. Districts concerned with identification, placement, and remediation of learning disability students could use the auditory processing battery and establish their own prediction equations based on known learning disability, average, and remedial reader cases.

Recommendations. In view of the variability within those labeled as learning disability students and the absence of a clear, operational definition, it seems that the key research question is whether or not these measures of auditory processing will discriminate among other learning disability students as compared to other average students and other remedial readers. Consequently, the prime recommendations is that the study be replicated in districts among which the eligibility criteria for Learning Disability Group placement vary.

A COMPARISON OF THE PERFORMANCE OF CHILDREN WITH PRIMARY READING RETARDATION AND CHILDREN WITH READING RETARDATION SECONDARY TO BRAIN DAMAGE ON SUBTESTS OF THE GATES-MCKILLOP READING DIAGNOSTIC TESTS

SANSBURY, Russell Joseph, Ph.D.
The University of Michigan, 1977

Chairman: Percy Bates

The purpose of this study was to examine the performance of two groups of retarded readers on subtests of the Gates-McKillop Reading Diagnostic Tests. It was hypothesized that differences in performance between the two groups of retarded readers would not be significant.

The subjects were eighty males, aged eight years, five months to sixteen years old, assessed as having a full scale I.Q. score of 90 or above and not diagnosed as psychotic. Forty subjects diagnosed as having a primary reading retardation were matched with forty subjects diagnosed as having a reading retardation secondary to brain damage.

Data for this research were obtained through comparative analysis of the responses of these two groups on ten subtests of the Gates-McKillop Reading Diagnostic Tests. The ten subtests produced twelve variables – oral reading raw score, oral reading grade score, untimed words raw score, untimed words grade score, recognizing and blending common word parts, giving letter sounds, naming lower-case letters, recognizing nonsense words, recognizing initial letter sounds, recognizing final letter sounds, recognizing vowel sounds and auditory blending. Reading retardation was also included as a variable but was not derived from the subjects' performance on the diagnostic subtests.

A t test analysis revealed a significant difference between the two groups on seven variables: oral reading raw score, oral reading grade score, untimed words raw score, untimed words grade score, recognizing common word parts, recognizing nonsense words and reading retardation. These variables were identified as the seven significant diagnostic variables.

Further analysis using discriminate analysis, cluster analysis, and stepwise discriminate analysis substantiated the discriminant function of the seven significant diagnostic variables.

A description and analyzation of the subskills necessary to perform adequately on the seven significant diagnostic variables lead to the interpretation that there is perhaps a difference in the neurological development of the two groups of retarded readers.

The results were interpreted to suggest that the group of seven significant diagnostic variables could be useful in differential diagnosis of reading disorders. Implied in differential diagnosis is prognosis and type of remediation. Educational implications are included in the discussion.

Order No. 77-18,111, 165 pages.

THE RELATIONSHIP OF AN ADULT EDUCATION STUDENT'S ABILITY TO PROCESS LINGUISTIC TRANSFORMATIONS AND HIS OR HER ABILITY TO PERFORM ON A TEST OF READING COMPREHENSION

SHORE, Anne Carter, Ed.D.
The University of Florida, 1976

Chairperson: Ruthellen Crews

The purpose of this study was to determine if there was a significant relationship between reading comprehension and a subject's ability to handle increasingly complex sentence structures. The study sought to determine if there was a significant difference between a good and a poor reader's ability to process linguistically complex sentences. Secondly, it asked if there was a significant interaction between sentence complexity and reading skills such that the greater the sentence complexity, the greater the measure of short-term memory. An additional area of interest was to inspect the data to determine whether there was a trend for the strength of the interaction to change as the readers' performances on the Linguistic Processing Test were compared to their performances on specific comprehension skills of recalling significant facts, understanding the main idea of the passage, and demonstrating critical reading skills.

The data were analyzed by the two way analysis of variance with repeated measures. The McGraw-Hill Basic Skills System Reading Test, Part III, and the Linguistic Processing Test, developed by Robert Scholes, was given to 40 adult education students. This test consisted of eight parts or conditions. The first condition was a set of digit strings that increased in length. The seven other conditions consisted of sentences followed by digit strings. For each condition a different sentence type was used. The sentence types were simple active, simple passive, compound active, compound passive, compound active and passive, compound active with a reduction, and compound passive with a reduction. For every condition, the digit strings increased in length. Each digit string or sentence plus digit string was visually displayed to the subject for a prescribed period of time. The subject was required to repeat the entire stimulus verbatim as soon as the stimulus presentation ceased. The length of the longest digit string correctly remembered for each condition was counted as the student's raw score.

The data indicated that there was a significant difference among the difficulty of sentence types. However, there was no significant interaction between sentence complexity and reading skills. Furthermore, there was no significant difference between good and poor readers' abilities to process linguistically complex sentences. Finally, the data did not indicate that there was a trend for the strength of the interaction to change as the readers' performances on the Linguistic Processing Test were compared to their performances on specific comprehension skills of recalling significant facts, understanding the main idea, and demonstrating critical reading skills. However, the data did indicate that there was more variance in students' performances on the more complex sentences especially when the passive was combined with the compound sentences. However, this variance did not follow the reading skills of the students.

The conclusions of the study were that a subject's ability to recall increasingly complex sentence types did not correspond to the subject's reading skill. Furthermore, an analysis of the mean scores of each reading group suggests that sentence length rather than linguistic structure made sentences harder to recall. Order No. 77-17,060, 104 pages.